FlyBy Math™ Alignment
Missouri Mathematics
Grade-Level Expectations

Strand: Number and Operations

3. Compute fluently and make reasonable estimates

E. Use proportional reasoning

Grade-Level Expectation	***FlyBy Math*™ Activities**
Solve problems using equivalent ratios **(**MA 1 3.3)	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.

Strand: Algebraic Relationships

1. Understand patterns, relations and functions

B. Create and analyze patterns

Grade-Level Expectation	***FlyBy Math*™ Activities**
Represent and describe patterns with tables, graphs, pictures, symbolic rules or words. **(**MA 4 1.6,3.6)	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

C. Classify objects and representations

Grade-Level Expectation	***FlyBy Math*™ Activities**
Compare various forms of representations to identify a pattern. **(**MA 4 1.6)	--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

3. Use mathematical models to represent and understand quantitative relationships

A. Use mathematical models

Grade-Level Expectation	***FlyBy Math*™ Activities**
Model and solve problems, using multiple representations such as graphs, tables, expressions and equations. **(**MA 4 1.6,3.6)	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes. --Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

4. Analyze change in various contexts	
A. Analyze change	
Grade-Level Expectation Compare situations with constant or varying rates of change. **(**MA 2,4 1.6,4.1)	***FlyBy Math*™ Activities** --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.

Strand: Geometric and Spatial Relationships

4. Use visualization, spatial reasoning and geometric modeling to solve problems.	
B. Draw and use visual models	
Grade-Level Expectation Draw or use visual models to represent and solve problems (MA 2 3.1)	***FlyBy Math*™ Activities** --Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

Strand: Measurement

1. Understand measurable attributes of objects and the units, systems and processes of measurement.	
C. Tell and use units of time	
Grade-Level Expectation Solve problems involving elapsed time (hours and minutes). (MA 5 3.1)	***FlyBy Math*™ Activities** --Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.
2. Apply appropriate techniques, tools and formulas to determine measurements.	
A. Use standard or non-standard measurement	
Grade-Level Expectation Estimate a measurement using either standard or non-standard unit of measurement. (MA 2 1.6,3.3)	***FlyBy Math*™ Activities** --Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

Strand: Data and Probability

2. Select and use appropriate statistical methods to analyze data.	
B. Compare data representations	
Grade-Level Expectation Compare different representations of the same data and evaluate how well each representation shows important aspects of the data. (MA 3 3.6)	***FlyBy Math*™ Activities** --Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.